

MARINE CORPS WARFIGHTING LABORATORY

Mine Countermeasures (MCM) Experimentation and Science and Technology (S&T) initiatives are based upon recommendations derived from the Institute for Defense Analyses (IDA) and the Office of Naval Research (ONR) study “MCM from Beach Exit Zone to Objectives”.

Background: The IDA/ONR MCM Study recommended near to far-term initiatives with an execution strategy to ensure that Marine Air- Ground Task Force (MAGTF) MCM will be a viable component of Expeditionary Maneuver Warfare. The Commanding General, Marine Corps Warfighting Laboratory (MCWL)/Vice Chief of Naval Research recommended four MCM experimentation evaluations during Fiscal Year 2003/04. These four evaluations will include: 1. Lightweight full-width mine rollers and mine extractors mounted on Light Armored Vehicles to breach assault lanes and clear mines on combat roads and trails, 2. Hydrema (medium weight) and Keiler (heavy weight) flails to rapidly clear both antipersonnel and antitank mines for laydown/beddown sites and for use in route clearance, 3. Individual protective systems to enhance survivability of dismounted personnel during mine clearance operations, and 4. Hand held detectors experimentation, including the Hand held Standoff Mine Detection System (HSTAMIDS).

In addition, three possible S&T initiatives were suggested to support MAGTF MCM during Fiscal Year 2003/06, these are:

1. Lightweight mechanical breaching systems for Marine Corps vehicles against all buried mines regardless of fusing type
2. Advanced signature duplicators to be placed on both land and airborne platforms to neutralize top-attack, side attack, anti-helicopter and bottom-attack landmines (includes both manned and unmanned applications)
3. Family of tailored explosive systems that can attack specific mine belts or individual mines at standoff distances.

Those recommendations are endorsed by the Director, Strategy and Plans Division; Plans, Policy, and Operations; U.S. Marine Corps. Specific MCWL focus/scope of effort will be to assess the utility of tailored and scalable MCM Capability Sets incorporating select aforementioned technologies and those currently available for procurement in the near term (3 - 6 months).

MINE COUNTERMEASURES

fact sheet



Description: MCWL is focusing it's efforts in the following areas:

1. Development of a Marine Expeditionary Unit (MEU) MCM Capability Set
2. Follow-on experimentation of candidate technologies and
3. Coordination with the Office of Naval Research on near- and far-term S&T initiatives.

Deliverable Products:

- Specifications for a MEU MCM Capability Set
- Procurement of 2-3 kits, notionally for I MEF, II MEF, and MCES experimentation
- Tailored and scalable Tactics, Techniques, Procedures, and Technologies (TTPTs)
- Analysis of alternatives for Non-Developmental Item in neutralize top-attack, side-attack, anti-helicopter, support of MAGTF Master Plan.

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